# Claims

[c1] We claim a method of creating, encapsulating, systematizing, and using information about constituent parts of a language (realized - i.e. visible - and rule based - i.e. no physical representation other than acting on other constituent parts) called the "language-object" which contains "existence" and "appearance" states and exists as an object in the sense of the term as understood in the field of object oriented programming. The language object contains data about its representation and rules that can be applied to said data and other language objects, and data and rules these are classified either as existence states or appearance states, where existence states and appearance states are comprised in the following manner:

1. Existence states:

a. Describe the environment in which a language object may appear

b. Define possible environments in terms of a language object's relation to other language objects.

2. Appearance States:

a. Describe ways in which a language object may act on other language objects and what meanings it may take

given its placement in relation to other language objects
b. Contain information regarding the scenarios in which a language object's actions, rules, and meanings occur. That is, combine existence state information with the rules, processes, and semantic information contained in appearance states.

[c2] We claim a generalized rule engine for creating language rules for and using language objects based upon a Monte Carlo Markov Chain process for deriving said language objects and information about them and there associations with other language objects, wherein said rule engine has the following properties:
1. The rule engine creates tests that may be based upon:
a. proximity of one language object to another on a tree structure (defined by the pre-existing network of constituent relationships in the language objects)
b. existence of other objects with relation to an object
c. application of a language object rule (that is, a trigger for a new rule based on the application of another rule)
2. Tests and applications of the rules created by such a rule engine are probabilistically based, in that repeated checks form tests that are reliable, or accurate descriptors of the language system as a whole, with a high degree of probability.
3. Reliability networks of such tests are updated regu-

larly to ensure that only rules that are highly reliable are expressed in the language system.

[c3] We claim a process for morpheme derivation of a language system based upon usage of language objects and the generalized rule engine.

[c4] We claim a process for word and word phrase derivation of a language system based upon usage of language objects and the generalized rule engine.

[c5] We claim a process for syntactic derivation of a language system based upon usage of language objects and the generalized rule engine.

[c6] We claim a process for semantic derivation of a language system (and its body of free text which is not manually marked up or tagged by humans) based upon usage of language objects and the generalized rule engine wherein:
such a semantic derivation process has the ability to garner data regarding the semantic intent of an author through high-level language-object tests (with semantic role language objects derived probabilistically).
such a semantic derivation process has the ability to associate data about language objects with authors to abstract information about bias.

such a semantic derivation process has the ability to associate data about language objects derived from corpus data collected within a business with the elements of said business to abstract information about efficiency and trends within said business.